## **CLAIMS**

What is claimed is:



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1.) A positioning system comprising:

a receiver configured to receive positioning signals;

a processor configure to process the positioning signals in a real time manner to generate positioning data;

user application code executed by the processor, said application code configured to access the positioning data;

a firewall established between the processor and the user application code, said firewall configured to prevent the user application code from corrupting positioning data and enables the processor to process the positioning signals in real time without interference by the user application code.

- 2. The positioning system as set forth in claim 1, further comprising an application programming interface (API), said API configured to access the positioning data as instructed by the user application code.
- 1 3. The positioning system as set forth in claim 2, wherein the API comprises a plurality of objects.
- 1 4. The positioning system as set forth in claim 1, wherein the 2 processor executes a real time operating system (RTOS).

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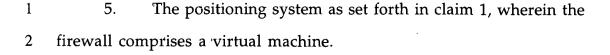
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- 6. 1 The positioning system as set forth in claim 1 wherein the 2 processor comprises positioning code executed by the processor and the 3 firewall comprises setting the positioning code to a higher priority than the 4 user application code.
  - In a positioning system, a method for processing positioning signals comprising the steps of:

receiving positioning signals;

processing the positioning signals in a real time manner to generate positioning data;

accessing the positioning data through a firewall that prevents an access from corrupting positioning data and interfering with the processing of the positioning signals;

processing the positioning data to generate user application data.

- 8. The method as set forth in claim 7, wherein the step of processing the positioning signals is performed using a real time operating system (RTOS).
- The method as set forth in claim 7, wherein the firewall 9. comprises a virtual machine, said step of accessing comprising the steps of: issuing instructions to the virtual machine; said virtual machine receiving the issued instructions and
- 5 performing the access in accordance with the issued instruction.

1	10. The method as set forth in claim 7, wherein the firewall
2	comprises the steps of processing the positioning signals at a higher priority
3	than the accessing and processing the positioning data.
1	(11.) A computer readable medium containing executable
2	instructions which, when executed in a processing system, causes the system
3	to perform steps for processing positioning information, comprising:
4	receiving positioning signals;
5	processing the positioning signals in a real time manner to generate
6	positioning data;
7	accessing the positioning data through a firewall that prevents an
8	access from corrupting positioning data and interfering with the processing
9	of the positioning signals; and
10	processing the positioning data to generate user application data.
1	12. The computer readable medium as set forth in claim 11,
2	wherein the instructions further comprise a virtual machine, said step of
3	accessing comprising the steps of:
4	issuing instructions to the virtual machine; and
5	said virtual machine receiving the issued instructions and
6	performing the access in accordance with the issued instruction.
1	13. The computer readable medium as set forth in claim 11,
2	wherein the step of accessing comprises accessing the positioning data at a



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lower priority than processing the positioning signals.